

AMENDMENTS TO THE DRAWINGS

Please substitute the enclosed Fig. 1 for the corresponding Figure filed on March 11, 2005. Fig. 1 has been amended to eliminate clutter and confusion caused by the previous amendment. An annotated sheet showing the changes also accompanies the replacement sheet. Both sheets are attached to the end of this paper.

REMARKS

In this paper, claims 1 and 17 are currently amended. After entry of the above amendment, claims 1-22 are pending.

The drawings were objected to as failing to properly show the sensor being mounted to one of a front fork, a back fork or a chainstay of the bicycle. Based on a telephone conference between Examiner Wittington and the undersigned, the undersigned understands the objection to be that the previously submitted amended Fig. 1 was cluttered and difficult to understand because of the proximity of the various lines in the drawing, especially the addition of the chainstay. Accordingly, the chainstay 2Y has been deleted, and the casing member (23) and sensor (25) in the possible alternative embodiments is shown by a box with a dashed lead line pointing to the proper location on the front and rear forks. Such a sensor disposed on a chainstay, while still an option, is not shown to avoid confusion with the bicycle originally shown in Fig. 1. It should be noted that the “part of the bicycle” recited in claim 21 refers to a mounting location for the magnetic sensor (25), whereas the “bicycle part” recited in claim 22 refers a mounting location for the casing member (23). Antecedent basis for the “part of the bicycle” is found in claim 20, whereas antecedent basis for the “bicycle part” is found in the preamble of claim 1.

Claim 22 was objected to as failing to limit the subject matter of a previous claim. As noted above, the “part of the bicycle” recited in claim 21 refers to a mounting location for the magnetic sensor (25), whereas the “bicycle part” recited in claim 22 refers a mounting location for the casing member (23). Thus, there is no conflict between the claims, for they refer to different structures.

Claim 22 also was rejected under 35 U.S.C. §112 because the specification does not describe how a magnetic sensor could be mounted to a wheel hub. As noted above, claim 22 refers to a mounting location for the casing member (23) that contains the magnets, not the sensor. It is well known how to mount various casing members that contain magnets. See, for example, US 6,162,140 (used to reject various claims in the present office action), particularly Figs. 7-9 and the accompanying description.

Claims 1-10 and 16-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Fukuda (US 6,162,140) in view of Uyeda, et al (US 4,521,731). This basis for rejection is respectfully traversed.

Claim 1 has been amended to clarify that the casing member includes an inner peripheral surface to fit around an outer peripheral surface of the mounting boss, and a surface that extends radially inwardly relative to the inner peripheral surface to face an axially facing surface of the mounting boss. Fukuda discloses a sensor retainer (300) comprising an annular member with a plurality of splines (354) that engage a plurality of splines (350) formed on a sprocket mounting sleeve (340). However, Fukuda neither discloses nor suggests an arrangement wherein sensor retainer (300) includes an inner peripheral surface to fit around an outer peripheral surface of sprocket mounting sleeve (340), together with a surface that extends radially inwardly relative to the inner peripheral surface to face an axially facing surface of sprocket mounting sleeve (340). Uyeda, et al also neither disclose nor suggest such a structure.

Claims 1, 11 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Davidson, et al (US 4,122,907) in view of Uyeda, et al. This basis for rejection is respectfully traversed.

Davidson, et al disclose a toothed chain wheel (23) mounted to a side surface of a crank arm (22). An annular member (24) containing twelve circumferentially spaced magnets (25) is bolted to a side face of chain wheel (23). However, as with the Fukuda structure, annular member (24) does not include an inner peripheral surface to fit around an outer peripheral surface of a mounting boss, together with a surface that extends radially inwardly relative to the inner peripheral surface to face an axially facing surface of the mounting boss. Thus, neither Davidson, et al nor Uyeda, et al disclose or suggest the presently claimed subject matter.

Claim 13 was rejected under 35 U.S.C. §103(a) as being unpatentable over Davidson, et al in view of Uyeda, et al and Tani. This basis for rejection is respectfully traversed for the same reasons noted above.

Accordingly, it is believed that the rejections under 35 U.S.C. §103 have been overcome by the foregoing amendment and remarks, and it is submitted that the claims are in condition for allowance. Reconsideration of this application as amended is respectfully requested. Allowance of all claims is earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "James A. Deland".

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# REPLACEMENT SHEET

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"APPARATUS FOR DETECTING ROTATION OF A BICYCLE PART"

Application No.: 10/604,888

Atty. Docket No. SIC-03-029

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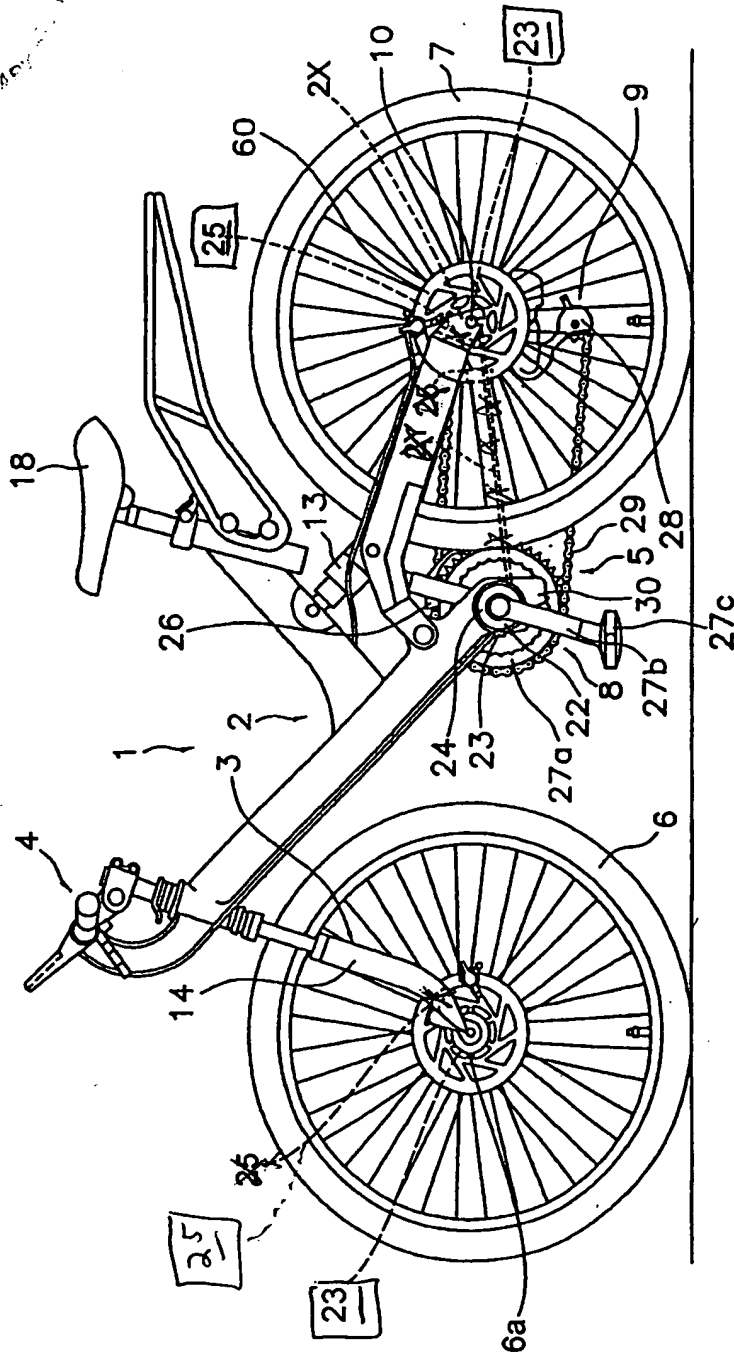


Fig. 1